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SA Power Networks electricity distribution network - 2020 to 2025

AGL Energy (AGL) welcomes the opportunity to respond to the Australian Energy Regulator's (AER) *Issues Paper: SA electricity distribution determination 2020 to 2025* (Issues Paper) and provide comments on the SA Power Networks (SAPN) regulatory proposal for the period 2020 to 2025.

AGL is one of Australia's largest energy retailers with over 338,000 customers in the SA retail electricity market.[1] Given the size of our customer base, AGL is concerned with any change in the level of network costs in SA, as well as the structure of those costs, with any change inevitably passed through to customers.

With a high focus on affordability, it is important that network charges are as efficient as possible and the SAPN proposal does provide a reduction in distribution network charges in 2020-21. However, this outcome is misleading as the reduction in the first year of the next regulatory period is largely being driven by a decline in the allowed rate of return and changes to the allowed tax allowance, both elements outside of SAPN's control.

In contrast, SAPN is proposing increases in the cost allowances that it can control such as operating expenditure and spending on asset replacement and non-network capital expenditure. This greatly reduces the potential revenue and network price reductions that would otherwise be available to consumers.

AGL is most concerned about this approach given the significant drop in utilisation of the SAPN distribution network with both business and residential energy usage declining due to solar PV penetration and increased energy efficiency. This trend is expected to continue in the next regulatory period.

Because of the revenue cap form of control being applied to SAPN, any difference between forecast and actual energy delivered has a significant impact on distribution network tariffs and consequently on retail electricity prices. With actual energy delivered continuing to be less than forecast, unexpected network tariffs increases have become commonplace, and this was clearly highlighted by the SAPN 2019-20 annual price change.[2]

[1] https://www.aer.gov.au/retail-markets/performance-reporting/retail-energy-market-performance-update-for-quarter-2-2018-19
[2] SA Power Networks Pricing Proposal 19/20

For 2019-20, the SAPN network prices unexpectedly increased for residential and business customers by more than 10 per cent due to the combination of:

- the allowable higher distribution revenue;
- increased pass-throughs (through increased transmission charges and PV FiT payments);
- recovery of previous years revenue under-recoveries; with
- all elements exacerbated by further declines in energy consumption.

AGL is encouraged by SAPN's network pricing strategy to incentivise increased network utilisation in the next regulatory control period from 2020 to 2025. However, AGL encourages the AER to consider the SAPN regulatory proposal under a scenario of decreasing energy consumption and network utilisation if the unanticipated network price increase of 2019-20 is to be avoided in the next regulatory period.

AGL believes the SAPN proposal need to focus on delivering the lowest cost and most efficient network service possible and believes the AER needs to critically examine the:

- proposed increases in capital expenditure on replacement and non-network assets;
- significant uplift in the proposed operating expenditure allowance;
- continued increases to the Regulatory Asset Base (RAB), given network utilisation is falling; and
- investment in solutions for managing distributed energy resources (DER), especially whether the timing of such expenditure is appropriate.

These are discussed further below.

Capital Expenditure

SAPN has only proposed future capital expenditure equal to its current capital expenditure in the 2015–20 period but AGL queries whether this is reasonable given that SAPN has proposed:

- treating a significant amount of expenditure, on cables and conductors, as operating expenditure over the 2021–25 regulatory period when it was previously classed as capital expenditure. AGL would expect a reduction in capital expenditure allowances commensurate to this proposed treatment;
- an increased spend on new connections with capital expenditure on new connections forecast to increase by about 20 per cent. This is underpinned by growth forecasts in the non-residential sector which would be a significant change from what is currently observed in South Australia;
- increased capital expenditure for improving reliability in some areas. SAPN appears to be comfortably exceeding the reliability standards and other key performance network indicators required by ESCOSA. This is despite underspending in the current regulatory period and accumulating a material carryover under the capital expenditure sharing scheme (CESS). This raises into question the need for any further allowance to improve reliability; and
- significant non network capital expenditure including expenditure on IT, property, and fleet. This follows material expenditure on IT spend in the 2015-20 regulatory period. AGL supports an efficient IT spend that would improve service and efficiency of the network but the consumer benefits of this expenditure have not been made apparent.

Operating Expenditure

In previous regulatory periods, AGL has supported SAPN's proposed operating expenditure allowances given its notable efficiency when compared with many other distribution electricity networks.

However, this SAPN proposal includes a significant and concerning increase in operating expenditure compared to the 2015–20 regulatory period.

SAPN has used a base-step-trend approach to forecast operating expenditure and has proposed using its operating expenditure in 2018–19 as the base year to best reflects the future costs required to efficiently maintain and operate a network. AGL does not support the selection of the base year from the later years of the regulatory period. Analysing the trend in operating expenditure over previous regulatory period highlights that operating expenditure in the later years of a regulatory period is consistently 20 per cent higher than the first year of the period. This is irrespective of whether SAPN has underspend or overspent the regulatory allowances during the period. This trend suggests that using the middle year or average expenditure over the period as the base year will be more reflective of actual cost.

AGL would also query:

- whether the identified positive step changes, totalling $75m, are reasonable and whether any negative adjustments can also be made to the base operating expenditure;
- the absence of forecast productivity improvements over the period. AGL strongly supports the inclusion of productivity improvements, however small, in the proposal and believes assuming no productivity is unacceptable for any firm, whether competitive or regulated; and
- whether the treatment of expenditure on cable and conductor minor repairs as operating expenditure is efficient and provides the best result for customers.

Incentive schemes

AGL understand that the operating expenditure efficiency benefit sharing scheme (EBSS) and CESS are supposed to provide a balanced incentive for networks to pursue efficiency improvements whilst sharing the benefits between the business and consumers. However, AGL has yet to perceive any benefit to consumers with these schemes and believe they are too complex to be implemented effectively for consumers.

For instance, SAPN forecast a CESS carryover from the 2015–20 regulatory control period due to lower augmentation, reduced customer driven capital expenditure and prudent delays in replacing network assets. This may not be signalling the improved cost efficiency of a network's activities but that the activities allowed for by the AER were not actually required.

AGL does not believe a delay in capital expenditure needs to be captured by an efficiency scheme and require additional payment by consumers. The network derives immediate benefit in a regulatory period from any underspend and a regulatory framework should not require customers to pay additional amounts in order to encourage a network to make what should be a commercially sensible decision.

AGL would also reiterate that under the EBSS, the networks will be unduly rewarded for any productivity improvements unless a baseline level of productivity was included in the initial operating expenditure allowances set by the AER.

Low Voltage (LV) Management Plan[3]

Due to the high penetration of rooftop solar PV generation in South Australia, part of the SAPN regulatory proposal includes significant expenditure on the distribution network to allow SAPN to actively manage the integration of distributed energy resources (DER).

This plan incorporates proposed capital expenditure of $32m and operating expenditure of around $4m per annum which seems unwarranted in the current regulatory period when a critical mass of batteries has not been installed in concentrated locations across the SAPN network.

At this point in time, AGL believes the proposed capital expenditure would be better substituted for operating expenditure to support a combination of passive strategies that increase the hosting capacity of the SAPN network.

This approach would also mitigate the risk of investment in potential stranded assets, not only for SAPN but also for hardware vendors and virtual power plant (VPP) operators. As the distribution market operational system evolves, it is likely that SAPN will need to align its own systems with that of other networks. If SAPN go down the path of building their own proprietary system, hardware vendors and VPP operators will incur cost in integrating to a SAPN system that may not be relevant in the future.

The energy system is in transition as storage and new business models emerge but AGL does not believe the SAPN proposal is currently appropriate as:

- they have not demonstrated that this scale of expenditure is needed before 2025; and
- it is likely to result in underutilised or stranded assets in the RAB given that this DER proposal will be impacted by the future direction of the NEM.

SAPN should instead focus on operating expenditure and spend on facilitating the delivery of competitive market solutions.

Alternative Solutions

The proposed capital and operating expenditure in the next regulatory period are a large investment to solve a problem that is present for a few hours on some days of the year.

We acknowledge that there are several VPP projects currently planned or proposed. However, even if every proposed battery (around 90,000) was installed as part of these projects, they will still be widely dispersed across the network which would limit any network impacts.

AGL believes that operating expenditure should be used instead of the proposed capital expenditure and targeted at supporting a combination of passive interim strategies (such as LV transformer tap changes) and active strategies (such as the use of batteries for non-network solutions) when it is prudent. These interim solutions will allow SAPN to increase the hosting capacity until a concentrated critical mass of battery installations is achieved and further action is required.

United Energy and other distributors have trialled the implementation of a DVMS system to reduce zone substation taps at selected times of the day to regulate voltages. United Energy has indicated that this system can be adopted by other distributors using metering/monitoring equipment installed at the end of the line (i.e. smart meter installations are not required for every household). The data from this system could be

[3] SAPN, Supporting document 5.18: LV Management Business Case

procured from a battery installed at the end of line. Rather than curtailing VPP output as proposed, the use of a similar system by SAPN could be effective at boosting hosting capacity and increasing the operating envelopes for voltage and thermally constrained regions of the network.[4]

Several studies have also been carried out that conclude that 90 per cent of overvoltage issues can be addressed via optimising the tap setting of the LV transformer. Where there is scope to do this on a LV feeder, AGL suggest that this should be considered by SAPN as another means of increasing hosting capacity rather than curtailing VPP output.

Where these options are not effective, batteries can be installed and coupled with solar PV in regions of the network with high PV penetration. Customers could be compensated for active voltage management services provided to the grid and the capabilities of the battery inverter can be utilised to increase hosting capacity and prevent voltages from operating outside the code. This has been successfully proven as part of the Networks Renewed project by other distribution network businesses including United Energy, AusNet Services and Essential Energy.[5]

These alternatives would mitigate the risk of any stranded investment in systems should the uptake of batteries not escalate as forecast but would not require the curtailment of VPP output. This would be beneficial for all stakeholders and allow aggregators to fully capture the future additional benefits of DER.

Ancillary network services

SAPN has substantially increased the prices for several services that they believe are not currently cost reflective.

The impact of shifting some of these services to cost reflective prices at the start of the next regulatory period is shown in Table 2.

Table 1: Changes to SAPN service charges

Service	Description	2018-19	2020-21	Increase
Disconnection and reconnection	Disconnection of supply (if service is cancelled the same fee applies).	$38	$87	+ $49
Temporary disconnect and reconnect	Requiring a line truck in attendance.	$540	$1,054	+ $514
	Requiring a single person crew attendance.	$250	$464	+ $214
Meter inspection fee	Request to complete physical inspection	$36	$57	+ $21

These are substantial increases and will have a significant impact on consumers from 2020-21.

AGL encourages the AER to review the costs of these services and whether they are appropriate and if so, whether they should be transitioned to these levels.

The cost of temporary disconnection and reconnection that requires network attendance is prohibitive to retailers and customers alike and is likely to cause many future issues. AGL therefore encourages SAPN to coordinate and plan with industry on how sites that require network attendance will be managed.

[4] https://www.unitedenergy.com.au/wp-content/uploads/2018/07/Demand-Response-Project-Performance-Report-Milestone-3.pdf

[5] https://www.uts.edu.au/research-and-teaching/our-research/institute-sustainable-futures/our-research/energy-futures-0.

Tariff structure statement (TSS)

AGL supports network tariff reform in principle as:

- network tariffs become more cost-reflective and better align with network's cost drivers;
- cross subsidies that exist because of volumetric tariffs are removed;
- network prices are more stable and consequently, their impact on retail prices is less volatile; and
- time signals are encouraged that allow consumers to efficiently invest in new technologies.

Unfortunately, these potential benefits are likely to be restricted by the introduction of regulated retail pricing and its impact on competitive retail markets from 1 July 2019.

SAPN has included several initiatives in its TSS for 2020–25 that will improve the cost reflectivity of network tariffs. AGL support SAPN approach as indicated in Table 2.

Table 2: SAPN proposals and AGL comment

SAPN proposal	AGL Comment
Proposing to use time of use as the default tariff for residential and small business customers.	AGL supports SAPN's use of time-of-use tariffs as default tariffs for small customers. AGL believes the off–peak period or 'solar sponge' is a good approach to incentivising mid-day consumption and improving the voltage issues associated with the high distributed solar output. As a retailer, keeping the time periods as clearly defined as possible is important for customer clarity and AGL believes it would ideal if a single peak period could be in place rather than two discrete peaks period. Similarly, AGL would advise avoiding seasonal overlays being combined with time of use tariffs.
Rebalance' its existing tariffs for small customers by increasing the supply charge.	AGL support moderate increases in fixed charges that stabilise revenue recovery for the network when they are accompanied by reductions in volumetric charges. However, the customer impacts must be carefully considered.
Introduce a 'prosumer' tariff to encourage customers to consume energy in the middle of the day and move demand from peak periods.	AGL supports this proposal and agrees with SAPN that this tariff has the potential to encourage the use of storage devices to shift load out of the peak period. At a minimum, the peak demand component for November to March may incentivise a reduction in usage during the SAPN summer peak.

Should you have any questions in relation to this submission, please contact me on [redacted] or [redacted].

Yours sincerely

[redacted]

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